

Canadians to Monopolize Shipments of Alaskan Fish

(Copyright, 1916, by Frank G. Carpenter)
PRINCE RUPERT, B. C. HAVE come from Alaska to British Columbia to write of an international complication regarding the placing of Alaskan halibut and salmon on the breakfast tables of the people of the United States. This business has been rapidly growing. The fish have been caught in Alaskan waters, put upon ice and brought to Ketchikan, from where they were shipped to Seattle. At Seattle they were put in cold storage cars and sent over the American railroads to the markets.

Now the Canadians have established a new fishing port at Prince Rupert, B. C. This port is the terminus of the Grand Trunk Pacific railway. It is 600 miles nearer the fishing grounds than Puget sound, and it is claimed that fish from our Alaskan waters can be landed there and be transported through Canada to our cities two days sooner than when shipped via Seattle. This means that, if other conditions are equal, most of the fresh fish caught in Alaskan waters for shipment to the east will be shipped from Prince Rupert, and that it will become the headquarters of the Alaskan fishing industry. Our fishermen will come here to live and they will buy their fishing supplies from the Canadian stores. In

Rupert is the baby port of the northern Pacific, but it has already become one of the fishing centers of this part of the world. Nevertheless, the town is only six years of age, and the Grand Trunk Pacific railway, which connects it with the east, has just begun to run its through cars. The place already has more than \$5,000,000 invested in its fisheries, and included in that amount are thirty-five canneries and seven large cold storage plants. Prince Rupert has hundreds of sailing vessels that are now going back and forth to and from our fishing grounds. It has ninety-nine gasoline launches used for the same purpose and forty-one fishing vessels moved by steam. There are about fifty American boats that land cargoes of fish here every week, and each train that goes eastward over the Grand Trunk Pacific railway carries carloads of fresh fish to the cities of the United States. More than a quarter of a million pounds of halibut were recently sent to New York and Boston in a single train load, and more than two hundred million pounds of that fish have been landed in the United States. The fish are packed in ice the moment they are taken from the sea, and are kept in cold storage cars until they reach the market, which is less than two weeks from the time they leave the hook. I am told that fish can be kept perfectly fresh for a month by the present methods of catching and packing.

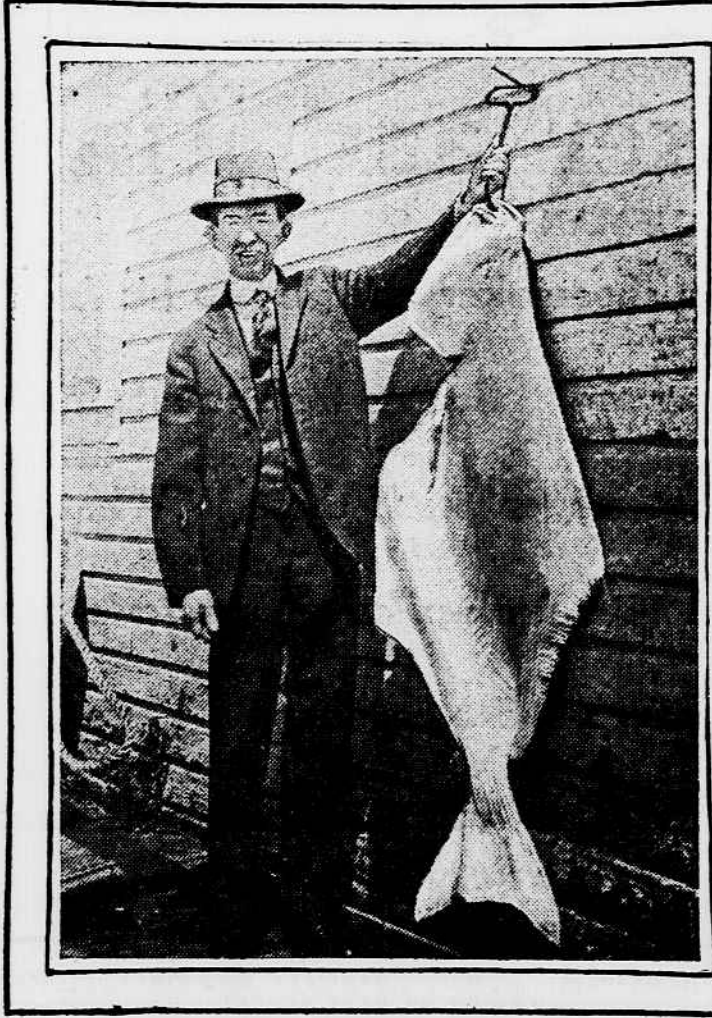
The most of the fresh fish shipped in this way are halibut, which are caught

FRANK G. CARPENTER Writes of International Complication Regarding the Placing of Halibut and Salmon From Alaska on Our Breakfast Tables—Prince Rupert Versus Ketchikan and Seattle—Our Big Halibut Industry—How the Fish Are Caught and Shipped Fresh for American Tables—Lines Sixty Miles Long, With Hundreds of Hooks—The Frozen Fish Industry—A Visit to a Cold Storage Plant.

the halibut industry during my stay in Alaska. The fish is one of the most interesting that swim the seas. It is the largest of the flat fishes. I have seen many which, if stood upon their heads, would reach high above my head and some which I venture are over three feet in width. The average halibut weighs about 100 pounds, but some have been caught that may weigh as much as 300.

The halibut swims on the bottom of the sea, and chiefly on banks, several hundred feet below the surface. It devours all sorts of fishes. One of its favorite foods is the herring, which is caught here in great quantities and frozen that it may be kept and used for bait.

The herring are found in nearly all



FRANK G. CARPENTER STANDING BESIDE A 150-POUND HALIBUT, CAUGHT NEAR KETCHIKAN.

down into the sea in such a way that the baited hooks rest on the bed of the ocean. The lines are of great length. Some of them are sixty miles long, so long that when loaded with fish it takes the stevedores on the fishing vessel the better part of a day to wind them up. They are divided into sections, each section having a float or buoy that rests on the surface, and is marked by a flag in the daytime and at night by a light. The line lies right on the bed of the sea. Attached to it are hundreds of hooks and each hook is baited. The halibut swims along the bottom, and when it reaches a hook it takes the bait. The fisherman then hauls the line up, and the fish are taken out of the water. These fish usually feed on or close to the bed of the ocean.

Some halibut fishing is now carried on direct from the ship. A few years ago it was all done in dories or small boats, which were taken out for the purpose in large vessels. The men would go out in the dories to set the lines and later bring the halibut back to the vessel.

The fishing parties usually stay out from ten days to three weeks. They carry ice with them and the moment the fish are taken from the hook they are cleaned and put in the ice and kept there until they reach the cold storage plant. They are washed as soon as they are landed and shipped in cold storage cars direct to the markets, or they may be kept for some time before shipping. In the latter case they are put into freezers, where they remain for twenty-four hours at a temperature of ten or twenty degrees above zero.

The next step is to dip each fish four or five times in fresh water until it becomes entirely incased in a thin

sheet of clear ice. It can then be held in cold storage at a temperature of four degrees below freezing until it is needed for export. The fish get a fresh coating of ice before they are shipped. They are then wrapped separately in vegetable parchment paper, and are packed in paper-lined boxes of 275 pounds capacity and sent eastward in the cold storage trains.

The bulk of the halibut fishing is now done by independent fishermen in small boats, although there are fishing companies with fleets of large vessels. The companies buy from the independents.

The fishermen who go out with the steamers are often paid by their catch, and a medium-sized halibut vessel disposes about \$50,000 a year in wages. The men get on the average from \$100 to \$125 a month each, although on some of the ships they are paid at the rate of a cent a pound for all that they catch. Many of the independent boats are run in partnership, the fishermen dividing the profits. Fresh halibut is now selling on the coast of the United States at a pound. The most delicious are the small ones, known as chicken halibut. Such fish usually weigh less than eight pounds. The fish sent to the east run from eight pounds to eighty pounds or more. The fish are shipped in cold storage cars, and it takes from six to ten days to get them to the markets in the eastern part of the United States. They are consigned to wholesale dealers, who usually have their sales on

Friday, so that if they arrive earlier in the week they have to wait until then before they go to the retailers. It takes about 20,000 pounds of fish to make one carload.

Large quantities of fish are now frozen, and held here for some time before shipping. A great deal of halibut is sold and put in hogsheds for shipment. Each hogshed holds about 800 pounds, and when full it is worth about \$100. The halibut intended for salting is dressed before it is packed. It is hung by the gills to a hook, and is then sliced in two the back and the front forming great slabs of snow-white meat. The backbone is cut out; the front or belly has no bones. After cleaning, the slabs are sprinkled with salt and put into the hogsheds in

resting the tail on the floor, and it did not bend in the least. Much of the fish in the cold storage plant was salmon, which had been frozen and stored away to be shipped as needed throughout the year. In some of the rooms I noticed that the noses had been cut from the salmon. The manager told me this was to mark the character of the fish as to its color. Some of the salmon have flesh which is white or light pink, while the flesh of others is red. It is impossible to tell the color of the flesh without cutting open the fish, and so the white salmon are marked by slicing their noses. The manager says there is really no difference in the taste or quality of the salmon according to its color, although the different colors bring a different price in the market.

And in this connection comes a story, which is fairly well authenticated, of how one of the salmon kings started his fortune in the fish industry on the basis of the then-despised light-colored salmon. This man had put up his cannery in a location past which the fish came in great numbers on their way in to spawn. He was right in his selection of a site and the salmon were caught in vast quantities. They were all, however, of the light pink variety, and the fisherman was in despair. At that time no light-colored salmon had been shipped and the demand everywhere was for salmon of an almost red hue. The man

of it in the future. Next to it comes the halibut, which is only in its beginning, although from five to ten million dollars a year are now spent upon that industry in wages and supplies. There are more than 1,400 men employed in halibut fishing in Alaska, and the annual catch is almost 15,000,000 pounds and is rapidly growing. There are also large cod fisheries in Alaska, and the cod are said to be equal to those caught on the Banks of Newfoundland. Much of the cod fishing is about the Aleutian Islands, and there are many vessels and stations devoted to the industry. The amount of cod caught last year was more than fifteen million pounds, which was an increase of 20 per cent over the catch of the year preceding.

In addition to the ordinary cod, they are now catching black cod, a fish of about the same size as the ordinary cod, but darker in color. The flesh is much richer in oil, but it may be prepared in such a way that it is delicious. It has been eaten for many years in Alaska, and they have been recently shipping it to Seattle, where the restaurants take a special feature of barbecued black cod. This consists of the backs of the fish, which are kippered or smoked, after being salted. They are served with drawn butter. There is a prospect that an extensive industry will some time arise in the shellfish of Alaska. They have oysters near here as large around as a saucer, and there are many places among the



EIGHTY THOUSAND POUNDS OF HALIBUT ON PRINCE RUPERT WHARVES.

other words, the Canadians, rather than the Alaskan Americans will get the chief profits out of the business.

In order to bring this about the Canadian parliament has recently passed laws enabling American fishermen and American vessels to land their cargoes at Prince Rupert free of all duties, and to send them in bond over their railroad through Canada on the way to our markets. The citizens of Prince Rupert are doing all they can to encourage the industry, and as a result the people of southeastern Alaska are greatly excited. The town council of Ketchikan and its commercial club have requested Secretary Redfield of our Department of Commerce to give them protection, and bills to that end will probably be introduced into Congress this session. The Alaskans demand that all fish caught in Alaskan waters, if shipped free of duty to the United States markets, shall be sent out from American ports, and they say that the Canadian railroads which carry the fish can easily send boats to Ketchikan, which is only a half a day away, for their cargoes.

From what I see here the fears of the Alaskans seem well founded. Prince

throughout the year. Fresh salmon are sent only during the months of the summer, when the salmon are running. They are exported in a frozen state from the cold storage plants throughout the winter. The exports of Alaskan halibut are rapidly increasing. It is used to be that all the fish of this kind consumed in our markets came from the Atlantic coast. Eighty-five per cent of it now comes from the Pacific coast, and the bulk from the fishing banks off the coast of Alaska. Alaskan halibut is now used in almost every part of the United States.

The fishing center of the territory is still Ketchikan and there are also fleets that make their headquarters at Petersburg, Juneau and elsewhere. The extent of the fishing grounds is enormous. There are some banks that seem to be paved with halibut, and the vessels bring them in by the thousands of pounds. A single party has been known to catch one hundred thousand pounds in a day and fifty thousand pounds a day is not uncommon. Not long ago one of the boats that went out from Ketchikan brought in more than a quarter of a million pounds of fish. The whole cargo had been caught in one week, and every pound of it had been taken with a hook and line. I have become greatly interested in

the waters of Alaska. They move about in large schools, some of which cover several square miles. The fish swim to the shores to spawn. They come by the millions, and in such large schools that they can be scooped up from the water right into the boats. Last year a great haul was made along the face of the dock of the New England Fish Company at Ketchikan. One end of the net was made fast to the wharf, and the herring were dragged out by the thousand. At that same time more than 2,000 barrels of herring were taken up by four seines in the Tongas narrows.

One way of catching these fish is by driving nails into a board so that they stick out several inches. The boards are then dragged through the shoals around the fish catch between the nails and are pulled by the boardful into the boats. In one year more than a million pounds of herring were caught at Prince Rupert and frozen by the cold storage plants to be sold for bait. Something like 125,000 pounds of codfish are annually taken for the same purpose.

The most of the halibut are caught with the hook and line. The fishing, however, has nothing gamey or sporting about it. The lines are dropped

layers, with a layer of salt between each two layers of fish. Small halibut is smoked, and in this form it may be found in almost any grocery store. During my stay in Prince Rupert and Ketchikan, I have gone through some of the big freezing establishments. Each town has its cold storage plants, where halibut and salmon are frozen to be kept for some time before shipment. The frozen fish are not thawed until they reach the larger cities and towns of the United States, where they are sold. I wish I could take you through the biggest cold storage plant of Prince Rupert. It has a capacity of 14,000,000 pounds of fish. Its buildings are right on the harbor, and the fish are frozen stiff as soon as they come from the wharves.

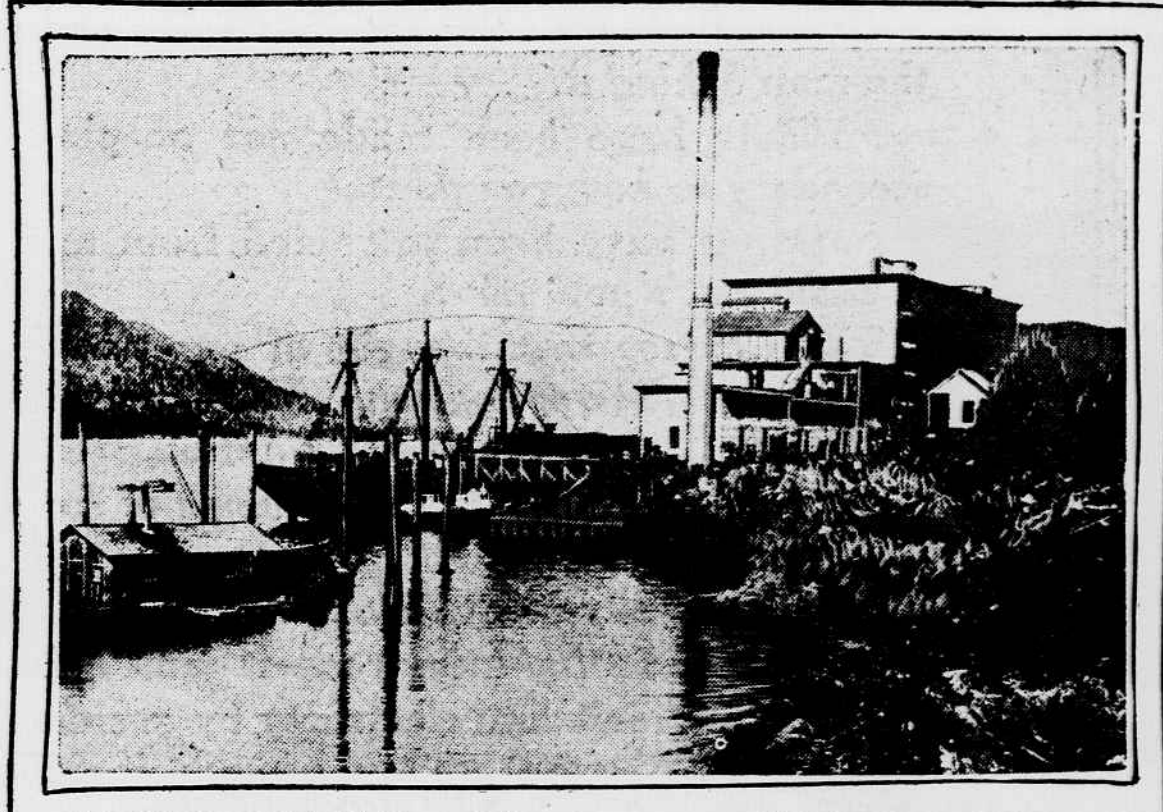
During my stay I have gone through the freezing chambers whose walls and floors are covered with frost. Their temperature is far below zero. The cold air is produced by the use of ammonia, and the smell of the ammonia almost overcame me as I walked between the great masses of fish laid out upon the floor. The fish are packed in cold storage cars, and it takes from six to ten days to get them to the markets in the eastern part of the United States. They are consigned to wholesale dealers, who usually have their sales on

canned his catch and sold it by means of a label which implied that it was the only sanitary fish on the market. The label read: "This salmon is warranted not to turn red in the can." The most of the catch went to the southern states, and the drummers selling it did their business so well that in many of the cities of that locality you can hardly sell a red salmon. The people think it is spoiled, and has, therefore, turned red in the can.

I am surprised at the extent of the fishing industry of this part of the world. The ocean floors of southeastern Alaska are carpeted with fish of many varieties; and there are large fishing industries carried on all along the coast out to the Aleutian Islands. There are many fish in Bering sea, and the Yukon and Kuskokwim rivers are filled with fish of one kind or another. The total value of the Alaskan catch for 1914 was almost \$20,000,000, and altogether we have caught enough fish in these waters to equal about thirty times what we paid for the territory. The total value up to date has been very close to \$20,000,000. The most of this has been made up of salmon, the canning of which is an enormous industry. I shall write of it in the future. Next to it comes the halibut, which is only in its beginning, although from five to ten million dollars a year are now spent upon that industry in wages and supplies. There are more than 1,400 men employed in halibut fishing in Alaska, and the annual catch is almost 15,000,000 pounds and is rapidly growing. There are also large cod fisheries in Alaska, and the cod are said to be equal to those caught on the Banks of Newfoundland. Much of the cod fishing is about the Aleutian Islands, and there are many vessels and stations devoted to the industry. The amount of cod caught last year was more than fifteen million pounds, which was an increase of 20 per cent over the catch of the year preceding.

Alaskan islands where you can catch crabs as big around as a dinner plate. There are clams, large and small; little butter clams that are delicious and others good to eat as big around as your hand. There is a man at Petersburg who has shipped this year sixty cases of one-pound cans of clams; and clams and clam juice were formerly packed at Klawak.

I am told, however, that one has to be very careful as to the source of his clam supply. Some of these bivalves feed in the water near the copper deposits, and the copper poisons their meat. The captain of one of our coast survey steamers, in speaking of this recently, told me how his life was saved by a pussy-cat. I had better test their edibility by giving one of them to my cat. The pussy ate it, and a moment later he rolled over and went into convulsions. She kept on kicking until every one of her nine lives had departed. The clams were poisoned by copper, but they look as sweet and healthy as any I have ever seen. Had the cat not been near, I would have tried them without question, and I really believe that that cat saved my life." **FRANK G. CARPENTER.**



COLD-STORAGE PLANT FOR HALIBUT AND SALMON AT PRINCE RUPERT.

Washington Aquarium Society Plans a Campaign Against the "Fish Globe"



AN IMPORTED RYAKIN GOLDFISH FROM JAPAN.
 (Photo from life by Dr. Shufeldt.)

Did you ever realize that it is not kind—or even humane—to keep goldfish and other pet fish in globes?

The Washington Aquarium Society, organized in this city during the past week, says such is the case, and announces that one of its first objects will be to initiate an active propaganda against the offensive "fish globe" practice.

Steps are now in the course of perfection to have the society in its campaign co-operate with the Washington Humane Society. This will mean that the sale and peddling of goldfish in small vessels on the streets will be prohibited and that instructive material on the subject of how to maintain an aquarium in such a manner as to keep its scaly occupants comfortable and healthy will be disseminated.

Washington has been a laggard in displaying a general interest in these matters and in agitating them. Other cities have already launched successful campaigns against the "fish globe." Foremost among these is New York, where the New York Humane Society has worked in co-operation with the American Federation of Fish Fanatics. The honorary president of the Washington Aquarium Society is Dr. Hugh M. Smith, the United States Commissioner of Fisheries, who has many other affiliations with eminent societies devoted to the advancement of aquatic life. His president is Dr. R. W. Shufeldt, formerly of the Army Medical Corps and now known as a well-known biologist and writer on aquatic and other scientific subjects. One of the prime movers of the organization is Mr. J. Henri Wagner, who is engaged actively at present in maintaining a number of model aquaria in private homes and schools of the city. He will act as the society's secretary.

"Most of the larger and many of the smaller cities of the country have their local aquarium societies," Dr. Hugh M. Smith said, "and it is very fitting that Washington should fall in line. There is no reason why this society should not attract a large number of amateurs, and prove one of the most important and influential organizations of its kind."

RECENTLY Organized Society Claims the Small-Necked Aquarium Is an Improper Way of Caring for Pet Fish—May Co-operate With Washington Humane Society in Active Propaganda Against Offensive Practice—Other Objects of the Society—The Breeding and Exhibition of Rare Specimens—Proper Care of Fish, Their Food and Surroundings.

fresh-water or salt-water aquarium, with the contents changed at frequent intervals. The bureau of fisheries is greatly interested in the establishment of aquarium societies and in the increased attention to water life that is thereby brought about. The knowledge of the habits and needs of water animals the greater will be the appreciation of and sympathy with the work of the bureau in conserving the fishes and other inhabitants of our ponds, lakes, streams and coastal waters.

A growing interest is said to exist in the United States in the keeping and cultivation of goldfish. This interest is one phase of the attention which young and old are devoting to the study and care of living creatures. It is aided in big cities by the facilities with which desirable material may be obtained at reasonable prices for stocking aquaria and ponds.

The Aquarium Society desires to accelerate the development of this interest and to stimulate it in such a way that the public may be awakened to a complete understanding of the fundamentals which underlie and govern what aquarium lovers call a balanced and self-sustaining aquarium. It is intended also to organize swimming parties to visit the many tributaries of the Potomac and nearby streams to hunt for aquatic creatures and to study their scientific worth and discuss the results of their researches at the society's meetings. These meetings will be held monthly and will be open to the public for the discussion of timely aquatic subjects.

It is to be hoped that a magazine which will be devoted to the many subjects of fish and aquatic creatures will be published at some future date. In short, the aim of the society will broaden as the support of the public grows stronger and keen interest begins to manifest itself; this, the supporters deem inevitable, as the whole question is one which teams with genuine educational value. Or it may be approached from the artistic standpoint, and the installation of such aquaria in residences, schools and offices be recommended not only because the fish themselves are beautiful and interesting, but because their presence helps to exert a truly cultural influence.

A properly managed aquarium stocked with goldfish may be maintained at much less expense and trouble than other ornamental animals or plants, and animal life must be present to create the necessary balance. Goldfish throw off carbonic gas, which

is poisonous to them if it is not resalable in some way. The gas is necessary for the life of the plants, hence it is not only a matter of beauty, but also one of utility to introduce a few of the

aquarium is unnecessary. It is possible to adjust the various elements by adapting the number of fish to the volume of water, securing a proper oxygenation of the water, and by means of absorption and plant action and introducing animal scavengers such as snails and tadpoles to remove the impurities, thereby securing the desirable balance which will permit the aquarium to maintain itself without a change of water.

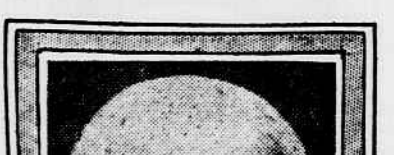
Sand is essential to the aquarium; it furnishes a foundation for the plants, beautifies the aquarium, and is used by

remedy for salt water fish, and salt water is a remedy for the ills of fresh water fish, aquarium keepers will find that a teaspoonful of salt to a quart of water will help to revive sick goldfish. In cloudy weather or in a very warm room, if the fish should rise to the surface for air, a dipper may be used to splash the water in the aquarium for a dozen or so times. This aerates the water and gives the fish of the fish, should stand erect when the fish is in a healthy condition. If it lies close to the bottom and remains there for a long time the fish is ill and needs a tonic. Sometimes it needs drastic treatment. The foundation for a salt bath and kept there until it leans well to one side; then, immediately, it is returned to the fresh water to revive it. In treatment once a day for several days usually revives it.

If fish are sluggish and inactive it usually means that they are overfed, the most common trouble in keeping an aquarium. Fish, to remain healthy, should be fed only as much as they will clean up without leaving a morsel on the surface. They should be hunting food all the time. In the limited quarters of a house pond goldfish grow fat and fat fish will remain practically the same size for years.

A goldfish breeder who desires to combine the useful and the ornamental may make a very attractive place by having his ponds form part of a landscape garden. Wonderful effects may be obtained by the judicious use of plants. Such an elaborate pond is frequently found at goldfish rearing establishments and its financial success depends in no small degree upon the pleasure it affords visitors who are thereby prompted to become patrons.

The extension of goldfish culture in general may be furthered in Washington by the formation of the new society. Professional and amateur goldfish breeders and fanciers will be induced to meet, exchange experiences and hold exhibitions and sales under its auspices. It is mentioned that the demand for goldfish is always far in excess of the supply and their culture can be made very remunerative. A very inviting field for the exercise of American ingenuity is the opportunity for the production of new goldfish varieties. As a result of the hybridizing of Chinese and Japanese goldfish American culturists have already obtained a number of attractive



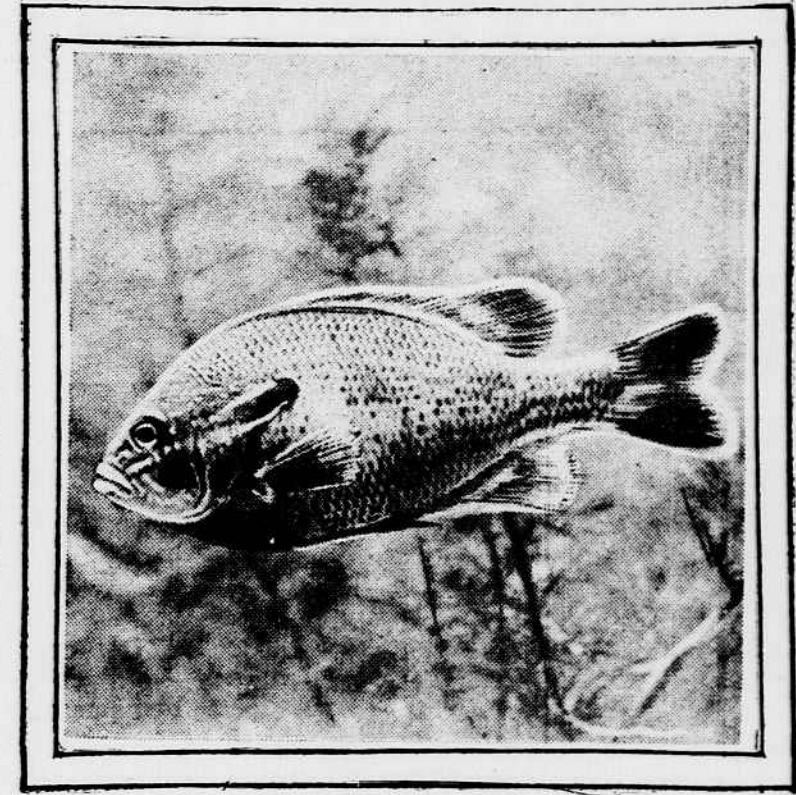
DR. HUGH M. SMITH,
 United States Commissioner of Fisheries.
 (Photo by Clinedinst.)



DR. R. W. SHUFELDT.
 (Photo by Buck.)

the fish to wash their gills and keep them sharp. It is necessary that this sand be kept clean and free from the humus which forms from time to time in the little hollow places, otherwise the fish will draw sand into their mouths.

Once a week it is well to dilute a pinch of table salt in a tablespoonful of water and scatter it in the aquarium. This stimulates the fish, being a tonic, and also kills some of the parasites. Bearing in mind that fresh water is a



THE LONG-EARED SUNFISH.
 (Photo from life by Dr. Shufeldt.)

varieties, but none of these can compare with the possibilities suggested by the further crossing of some of the Japanese varieties with some of the American.

Stimulating the breeding of goldfish is not as fantastic a proposition as it may appear. Those who are acquainted with the conditions of the industry know that fabulous prices are paid by wealthy connoisseurs for a single fish of a select breed. A specimen exhibited at the bureau of fisheries was valued at \$1,200.

The vogue that goldfish acquired in Japan and which is retained with an ever-increasing popularity may be transplanted in America with noteworthy effect, says Dr. Smith. The love of the purely beautiful which pervades all classes there is an index of a significant feature of the Japanese character. The thousands of landscape gardens, parks and temple grounds all over the Land of the Rising Sun there are lakes and ponds stocked with turtles, carp and goldfish, and one of the favorite amusements of the crowds that flock to such places is to feed the fish. Just as in Venice, where there is always a vendor ready to supply one with corn for the doves of St. Mark's, so at the public resorts of Japan there is always a person ready to provide low balls of colored rice flour to be thrown into the water. The balls are answered, and if you say it again I'll light and for a few minutes float like smash your coco."

London Patriotism.
 From 150 houses in a single street in London 195 men have answered the call of their country. That street is Trafalgar street, Walworth. Almost every house has its roll of honor card on the wall. The patriotic inscription: "Doing duty from here for king and country. Are you doing yours? God save the king." Above this inscription the number of men serving from that particular house is recorded. As many as five members of a family are at the front from a single home.

The Proof.
 CHANCELLOR VON BETHMANN-HOLLEGG'S recent declaration in the reichstag that Germany is a peace-loving nation, fighting a defensive war against savage aggressors, led Capt. W. Finch of the Arabic to say: "Germany peaceful, eh? Her war is purely defensive one? Well, that reminds me of the chap who had his bumps examined by a phrenologist. 'From your bumps, the phrenologist said, 'I should say you were a very quarrelsome person.' 'What, you're a peace-lover, see? The chap was answered, and if you say it again I'll light and for a few minutes float like smash your coco.'"